

**New North American Histeridae (Coleoptera).**

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***Terapus arizonensis* new species.**

Rufo-ferruginous, shining. Head very closely coarsely punctate, somewhat depressed in a median line from vertex to clypeus; labrum glabrous, transverse, truncate, edge piceous strongly flexed outward; front acutely margined, carinae interrupted medially, minutely setiferous.

Pronotum one-half wider than long, sides very broadly arcuate; disc sharply convex medially, strongly closely punctate throughout, punctures separated by half their diameter; lateral lobes more finely unevenly punctured, anterior lobe with apical angle truncate, bearing numerous short recurved setae, strongly reflexed, limiting a shallow glabrous depression. Elytra slightly broader than long, densely punctate throughout, except medially along suture, where the surface becomes impunctate and smooth; humeri prominent, bicarinate, inner carina subentire, abbreviated slightly at base and apex, outer carina short, extending from basal margin to apical two-thirds; epipleurae with a distinct, broad, shallow, depressed area in basal third, limited on the inner side by outer humeral carina and exteriorly by a strongly arcuate stria which nearly unites with the latter at the base; apical angles more closely punctate, setaceous.

Propygidium transverse, closely, but not strongly, punctate at base, gradually becoming finer and sparser approaching apex; transverse carinae strong, narrowly interrupted medially, almost impunctate immediately above and below. Pygidium weakly, subobsoletely punctate at base, becoming glabrous apically.

Prosternum very densely, coarsely punctate throughout, bistriate, striae sinuate, strongest at base. Metasternum moderately punctate at base, becoming finer and sparser towards apex; median longitudinal line entire, fine.

Hind femora stout, very closely, strongly punctate on convex outer face, each puncture bearing a short, squamiform, recumbent seta; dorsal surface with a short, distinct carina in basal third. Hind tibiae strongly dilated in basal fourth, deeply concave on inner face, outer face strongly convex, surface similar to that of femora. Length 2.25 mm.; width 2 mm.

*Holotype* (No. 4524 Mus. Calif. Acad. Sci. Ent.) collected by the writer at Patagonia, ARIZONA, alt. 4000 feet, July 8, 1936. The specimen was taken in flight a day after the first heavy summer rain, consequently no record of the host ant

could be obtained; undoubtedly it occurs in the nests of *Pheidole* as do other species of *Teraphus*.

This species is nearest *mnizechi* Mars. and *nigritus* Hntn., but differs from both in its almost complete lack of vestiture, lighter color, almost obsolete pygidial punctuation, and in the form and surface of the hind tibiae. From *infernalis* Fall, it is distinct in many features most notable of which being its much lighter color, stouter legs, and more strongly convex and coarsely punctate outer face of the hind tibiae; in *infernalis* the outer face is very feebly convex and only minutely sparsely punctate.

**Hetaerius wagneri** new species.

Broadly quadrate-oval, robust; dark reddish-brown, shining; surface very finely punctulate, devoid of vestiture except along lateral margins of pronotum. Head finely alutaceous, sparsely punctate; marginal carinae strong, abruptly arched in front, reverting to apical angles of clypeus; labrum large, concave, smooth glabrous.

Pronotum twice as wide as long, sides gradually convergent; disc moderately convex, obsoletely punctate baso-medially gradually becoming stronger approaching apex, basal margin with a fine but distinct stria strongest in medial third; anterior lateral area broad, strongly, unevenly, longitudinally rugulose; bulla broad, deeply rugoso-punctate; outer marginal sulci of both lobes densely setigerous, setae stout, short, pointed, color same as that of sclerites; oblique sulci deep in basal third, becoming weaker towards apex, abruptly curved inward and joining frontal margin. Elytra one-third wider than long, surface very finely alutaceous, sparsely, finely punctate, strongly convex, epipleurae finely bistriate; striae widely separated, outer humeral strongly cariniform at base, forming a deep groove on inner side, joining inner humeral at base and again at apical three-fourth, inner humeral entire, strong, dorsal at base becoming ventral at apex, the three dorsals entire, cariniform at base, less so approaching apex, basal subhumeral angles with a few short closely set setae.

Propygidium dull, finely alutaceous throughout, very minutely, sparsely punctate, naked. Pygidium convex, surface similar to latter at basal third, becoming smooth and glabrous towards apex.

Prosternum flat, lobe very coarsely punctulate, less so towards base, strongly alutaceous; prosternal striae cariniform,

broadly divergent behind coxae, more feebly divergent before, tips sharply convergent but not meeting. Meso-metasterna anteriorly very deeply depressed, only feebly transversely convex within depression; sternites smooth shining, microscopically punctate. Length 2.75 mm., Width 2.25 mm.

*Holotype* (No. 4525 Mus. Calif. Acad. Sci. Ent.) collected at Bass Lake, Madera County, CALIFORNIA, on April 1, 1934, by Mr. R. S. Wagner, for whom this species is named as a slight token of gratitude.

This species is allied to *wheeleri* Mann from which it is readily separated by its large size, darker color, total absence of dorsal pubescence, and by the form and sculpture of the pronotum. In *wheeleri* the pronotum is less convex, the oblique sulci are not curved inward apically but are straight and the basal marginal stria is absent. The meso-metasternal depression in this species is more prominent than that of any other species of the genus.

In Martin's key to the species of *Hetaerius* (Ent. News XXXIII, 1922, pp. 292-293) this species runs to *dictrichi* Mart., from which it is at once distinguished by its much larger size, darker color, strongly rugulose anterior lateral pronotal lobe and more robust convex form; *dictrichi* is elongate with more nearly parallel sides. No record of the host ant accompanies the type.

#### **Plegaderas setulosus new species.**

Very broadly oblong oval, feebly convex; color ferruginous; surface punctate, each puncture bearing a short distinct erect scale-like seta. Head finely sparsely punctate.

Pronotum short, one-third wider at base than long; sides feebly sinuate, slightly convergent cephalad, broadly arcuate from just before middle to apical angles; lateral sulci deep, broad, entire; lateral margins broad, feebly convex, punctures coarse, shallow, elongate, separated by half their diameters; outer marginal striae strong; transverse sulcus deep, dividing the pronotum into two nearly equal regions; anterior region strongly evenly convex, punctuation similar to that of head; posterior region more feebly convex, punctures fine and sparse anteriorly, becoming somewhat larger and closer laterally and basally, punctures along basal margin very broad and shallow decreasing slightly in diameter medially. Elytra

one-fourth wider than long, sides strongly evenly arcuate; surface evenly convex, uniformly punctate, punctures broad, shallow, decreasing in depth posteriorly, interspaces less than width of punctures; whole surface presenting a finely, unevenly roughened appearance, somewhat less so along suture; oblique basal striae traceable only by faint indistinct impressions; punctures of inflexed portions nearly confluent.

Pygidium deeply closely punctate, more finely so at apex. Prosternal grooves wide, deep; anterior lobe one-fourth longer than wide, punctures broad, shallow; posterior lobe as wide as long, square, equal in width to posterior portion of anterior lobe. Metasternal plate evenly cribrately punctate. Length 1.2 mm; width .85 mm.

*Holotype*, deposited in the Canadian National Collection, collected at Hosmer, BRITISH COLUMBIA, on June 7, 1936, by Mr. Hugh B. Leech, to whom I am grateful for the privilege of describing this species.

This species represents a rather isolated development for the genus and cannot be closely compared with any other species of this fauna. It is especially distinctive in the prominence of the setae arising from each puncture of the dorsal and ventral surfaces. Indeed setae arising from punctures is a characteristic feature of *Plegaderas*, but in no other species do they even approach those of *setulosus* in degree of prominence. In the other species the setae are minute and can only be seen under high magnification and special conditions of light. The setae in *setulosus* are scale-like, apically truncate and decreasing in width towards their bases, tending to curl outward. The curious sculpture of the elytra is also without parallel in the genus.

The type was collected in the gallery of an ants nest, *Formica* sp., located in the heart of a rotting Douglas Fir log. This fact suggests a myrmecophilous habit in spite of the fact that all other members of the genus occur under the bark of trees in early stages of decay and have never been reported to occur with ants. Perhaps the specimen was carried into the nest by one of the ants.